abcam

Product datasheet

Human PD-L1 ELISA Kit [28-8] ab214565
SimpleStep ELISA

5 图像

概述

产品名称	人PD-L1 ELISA试剂盒[28-8]
检测方法	Colorimetric

精确度

批次内

样品	n	Mean	SD	CV%
Overall	8			5.4%

批次间

样品	n	Mean	SD	CV%
Overall	3			4.1%

样品类型	Cell culture supernatant, Urine, Serum, Plasma, Cell culture extracts, Tissue Extracts
检测类型	Sandwich (quantitative)
灵敏度	2.91 pg/ml
范围	21.87 pg/ml - 1400 pg/ml

回收率

特定样本回收率

样品类型	平均%	范围
Cell culture supernatant	103	102% - 105%
Urine	91	86% - 96%
Serum	86	82% - 91%
Cell culture extracts	102	100% - 103%
Tissue Extracts	105	104% - 107%
Heparin Plasma	92	89% - 93%

样品类型	平均%	范围
EDTA Plasma	85	81% - 88%
Citrate Plasma	84	79% - 88%

检测时间   1h 30m

实验步骤   One step assay

种属反应性

与反应： Human

不与反应： Mouse, Rat, Cow, Cynomolgus monkey, Macaque monkey

产品概述

PD-L1 *in vitro* SimpleStep ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the quantitative measurement of PD-L1 protein in serum, plasma, and cell culture supernatant, cell and tissue extracts.

We combined our highly specific **RabMAb PD-L1 antibody [clone 28-8] (ab205921)** with our 90-minute SimpleStep ELISA protocol to create a kit with nearly 2-fold higher sensitivity than our main competitor's published results.

The SimpleStep ELISA employs an affinity tag labeled capture antibody and a reporter conjugated detector antibody which immunocapture the sample analyte in solution. This entire complex (capture antibody/analyte/detector antibody) is in turn immobilized via immunoaffinity of an anti-tag antibody coating the well. To perform the assay, samples or standards are added to the wells, followed by the antibody mix. After incubation, the wells are washed to remove unbound material. TMB substrate is added and during incubation is catalyzed by HRP, generating blue coloration. This reaction is then stopped by addition of Stop Solution completing any color change from blue to yellow. Signal is generated proportionally to the amount of bound analyte and the intensity is measured at 450 nm. Optionally, instead of the endpoint reading, development of TMB can be recorded kinetically at 600 nm.

Sensitivity:

Samples in Sample Diluent NS: 2.16 pg/mL

Samples in 1X Cell Extraction Buffer PTR: 8.97 pg/mL

说明

PD-L1 (also known as CD274 or B7-H1) is a membrane bound glycoprotein involved in regulation of the immune system. PD-L1 is expressed on a variety of inflammatory-activated cells as well as some carcinomas and in melanoma. PD-L1 binds to PD-1 and CD80, where it can suppress T cell activation and proliferation as well as induce apoptosis. Levels of PD-L1 are increased in the plasma of cancer patients as well as in cerebrospinal fluid of gliomas. PD-L1 can bind PD-1 in order to regulate T cell apoptosis.

经测试应用   **适用于：** Sandwich ELISA

平台   Pre-coated microplate (12 x 8 well strips)

性能

存放说明   Store at +4℃. Please refer to protocols.

组件	1 x 96 tests
10X Wash Buffer PT (ab206977)	1 x 20ml
50X Cell Extraction Enhancer Solution (ab193971)	1 x 1ml
5X Cell Extraction Buffer PTR (ab193970)	1 x 10ml
Antibody Diluent CPI	1 x 6ml
Human PD-L1 Capture Antibody 10X	1 x 600µl
Human PD-L1 Lyophilized Recombinant Protein	2 vials
Plate Seals	1 unit
ab205921 - RabMAb anti-PD-L1 Detector Antibody 10X	1 x 600µl
Sample Diluent NS	1 x 50ml
SimpleStep Pre-Coated 96-Well Microplate (ab206978)	1 unit
Stop Solution	1 x 12ml
TMB Development Solution	1 x 12ml

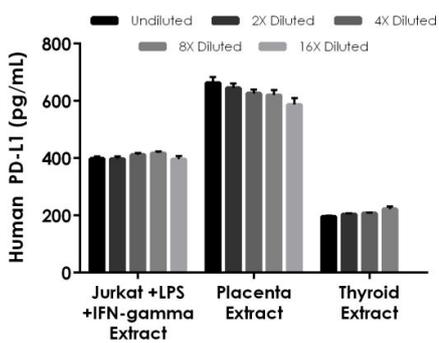|	
功能	Involved in the costimulatory signal, essential for T-cell proliferation and production of IL10 and IFNG, in an IL2-dependent and a PDCD1-independent manner. Interaction with PDCD1 inhibits T-cell proliferation and cytokine production.
组织特异性	Highly expressed in the heart, skeletal muscle, placenta and lung. Weakly expressed in the thymus, spleen, kidney and liver. Expressed on activated T- and B-cells, dendritic cells, keratinocytes and monocytes.
序列相似性	Belongs to the immunoglobulin superfamily. BTN/MOG family. Contains 1 Ig-like C2-type (immunoglobulin-like) domain. Contains 1 Ig-like V-type (immunoglobulin-like) domain.
细胞定位	Cell membrane and Endomembrane system.

应用

Our Abpromise guarantee covers the use of **ab214565** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
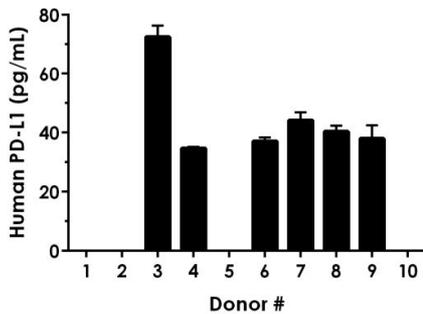
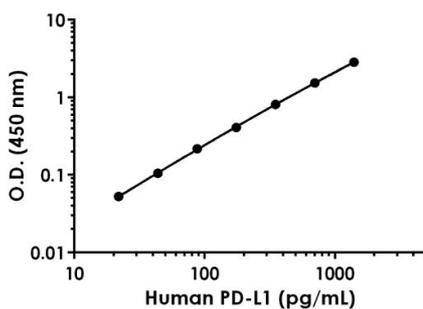| 应用	Ab评论	说明
Sandwich ELISA		Use at an assay dependent concentration.

图片

Interpolated concentrations of native PD-L1 in human Jurkat stimulated with LPS and IFN-gamma, placenta and thyroid based on a 1,000 µg/mL extract load.

The concentrations of PD-L1 were measured in duplicate and interpolated from the PD-L1 standard curve and corrected for sample dilution. The interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). The mean PD-L1 concentration was determined to be 404.3 pg/mL in Jurkat stimulated with LPS and IFN-gamma, 628.4 pg/mL in placenta and 207.5 pg/mL in thyroid extracts.
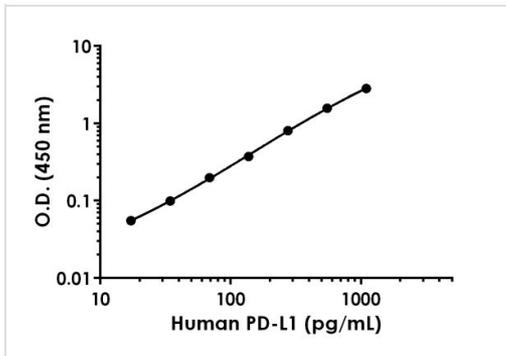

Serum from ten individual healthy human male donors was measured in duplicate.

Interpolated dilution factor corrected values are plotted (mean +/- SD, n=2). PD-L1 was measured in 6 donor serum samples and the remaining 4 samples measured less than the lowest point of the PD-L1 standard curve. Of those measured, the mean PD-L1 concentration was determined to be 44.5 pg/mL with a range of 34.4 – 75.3 pg/mL.
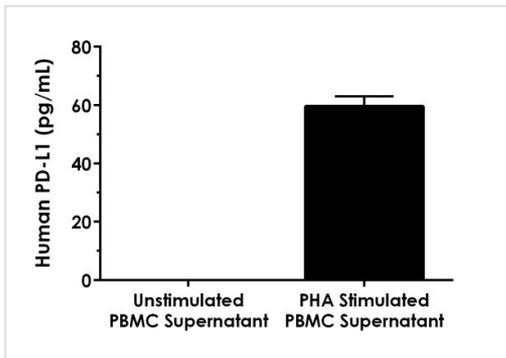

Example of human PD-L1 standard curve in 1X Cell Extraction Buffer PTR.

Background-subtracted data values (mean +/- SD) are graphed.

Background-subtracted data values (mean +/- SD) are graphed.

Example of human PD-L1 standard curve in Sample Diluent NS.

Conditioned media was harvested after 48 hours. PD-L1 was measured in 100% unstimulated and PHA stimulated PBMC supernatant. The concentrations of PD-L1 were measured in duplicate and interpolated from the PD-L1 standard curves. The interpolated values are plotted (mean +/- SD, n=2). The mean PD-L1 concentration was determined to be 59.7 pg/mL in PHA stimulated PBMC supernatant. There was no detectable signal in unstimulated supernatant.

Human peripheral blood mononuclear cells were cultured unstimulated or stimulated with 10 μg/mL PHA.

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